

Management Workshop & Webinar: Pump Systems Optimization & Assessments: For Municipal Drinking Water and Wastewater Facilities

Hosted By: MassDEP, DOER, National Grid and Eversource

Course Date: Wednesday, November 4, 2015

Time: 8:30 a.m. – 12:30 p.m. (Webinar 8:30 – 10:00 a.m.)

Location: MA Division of Fisheries & Wildlife Field Headquarters

1 Rabbit Hill Road (off North Drive), Westborough, MA 01581

Course Registration: estore.pumps.org/Education/MassDEP_PSO.aspx

Webinar Registration: estore.pumps.org/Education/MassDEP_Webinar.aspx



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Workshop Description

This program will provide in depth instruction on the methodology and opportunities to increase energy efficiency in pumping systems. Pumping systems are amongst the highest energy consumers in drinking and wastewater operations and frequently offers one of the greatest energy cost savings opportunity. The attendee will learn how to assess and consider options to improve both efficiency and reliability of pumping systems. Energy assessments and various options for increasing efficiency and determining cost effectiveness will be discussed.

Who Should Attend

Pumping systems represent a major electrical load for both drinking water and wastewater plants across Massachusetts; i.e., approximately 90% of electric usage for water facilities and 20-30% at wastewater facilities. MassDEP and MA DOER are identifying ways to increase long-term pump system efficiencies and bring significant life-cycle cost savings to participating municipalities.

Pump System Optimization and Assessments involves identifying, qualifying and quantifying energy savings opportunities available through maximizing system performance. Also, energy reduction is typically accompanied by reliability improvements from making mechanical or control modifications to the system. System changes include pump refurbishment or replacement, impeller trim or redesign, implementing variable frequency drives, closing recirculation (bypass) lines, turning off motors that are not needed (especially in parallel systems), opening valves, as well as using epoxy coatings. Additionally, pump sequencing and management can lead to demand cost savings for facilities. Pump system modifications can reduce electricity costs by 5-60%.

Based on the potential sector-wide electricity and cost savings estimated using MA DOER's 2014 Mass Energy Insight (MEI) electricity usage data, collected for municipal wastewater (91%) and drinking water facilities (43%), MassDEP and MA DOER would like to collaborate with Mass Save® and Municipal Light Plants to develop a comprehensive, sector-wide approach to addressing pump system optimization. These activities would include statewide operator training sessions that support pump system screening to identify the best candidates, and a utility implementation plan for all cost-effective electrical saving opportunities.

Certified Course Instructors



William C. Livoti, WEG Electric: With over 40 years of experience in both pumps and motors, Mr. Livoti has been involved with engineering designs, field engineering, testing and repair of all types of pump systems across multiple industries.

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